

## Mouse recombinant IL-1 alpha (Interleukin-1 alpha) protein, AF

Catalog Number: PROTP01582-6

### Overview

Product Name	Mouse recombinant IL-1 alpha (Interleukin-1 alpha) protein, AF
Description	Interleukin-1 alpha (IL1 alpha or IL1alpha) is a member of the interleukin-1 cytokine family, found constitutively present in epithelial layers of the entire gastrointestinal tract, lung, liver, kidney, endothelial cells, and astrocytes. The synthesized IL-1 alpha is a 31 kDa inactive precursor and can be cleaved by intracellular caspase-1 or extracellular proteases to generate the bioactive 17 kDa form and the 16 kDa N-terminal cleavage product. Both precursor and mature IL-1 alpha protein bind to the IL-1 receptor (IL-1R), initiating a cascade of inflammatory cytokines and chemokines production such as IL-6, IL-8, and TNF, in response to viral and bacterial pathogens conditions. IL-1 alpha plays a central role in immune-surveillance mechanisms, stimulating macrophages, neutrophils, and CD8+ T cells activity.
Size	5ug,20ug,100ug
Tag	His Tag (C-term)
Form	Lyophilized
Source	Escherichia coli
Formulation	The protein was lyophilized from a 0.2 um filtered solution containing 1X PBS, pH 7.4. If you have any concerns or special requirements, please confirm with us.

### Storage

Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.

### Purity

>95% as determined by SDS-PAGE.

### Molecular weight

The protein has a calculated MW of 18.93 kDa. The protein migrates as 20 kDa under reducing condition (SDS-PAGE analysis).

### Activity

Measure by its ability to induce D10.G4.1 cells proliferation. The ED<sub>50</sub> for this effect is 2 x 10<sup>2</sup> IU/mg.

### Endotoxin

<0.1 EU per 1 ug of the protein by the LAL method.

### **Amino Acid Sequence**

MSAPYTYQSDLRYKLMKLVQRQKFMNDSLNTIYQDVDKHYLSTTWLNDLQQEVKFDMYAYSSGGDDSKYPVTLKISDSQLFVSAQGEDQPVLLKEL  
PETPKLITGSETDLIFFWKSINSKNYFTSAAYPELFIATKEQSRVHLARGLPSTDFQIS with polyhistidine tag at the C-terminus.

### **Reconstitution**

Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile H<sub>2</sub>O to a concentration not less than 100 ug/mL and incubate the stock solution at room temperature for at least 20 mins to ensure sufficient re-dissolved. Do Not Vortex!  
Vigorous shaking may impair the biological activity of the protein.

## Usage

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